Remarks

Claims 12-22 and 24-28 are now pending in this application. Applicants have amended claims 26 and 28 to clarify the present invention. Applicants respectfully request favorable reconsideration of this application.

The Examiner rejected claims 12-22 and 24-28 under 35 U.S.C. § 112, first paragraph, as reciting subject matter not described in the specification. In particular, the Examiner states that the specification does not describe an "impact resistant" board. The specification does describe a board that "endures impact stress". It is not necessary that the specification verbatim describe the invention as recited in the claims. For example, Applicants direct the Examiner's attention to the holding in *In re Wertheim et al.*, 191 U.S.P.Q. 90 (C.C.P.A. 1976), where the court stated, "It is not necessary that the application describe the claim limitations exactly."

In spite of the above, Applicants have amended the specification to repeat verbatim the language from the specification. Applicants do not admit or acquiesce to the rejection. The Examiner's comment that "Most anything 'endures impact stress'" is preposterous. Following this line of reasoning, a piece of polystyreme foam is impact resistant. In the context of the present invention,

The present invention is not claiming mere impact resistance. Rather, the present invention, as recited in the clams is limited to a bowling alley element. As such, the present invention is functional as a bowling lane and, as a result, must be able to endure repeated impacts

of bowling balls and retain its characteristics as a bowling lane. No scaffolding, staging or honeycomb panel cited must retain characteristics such as a bowling lane in view of the repeated impacts of a bowling ball.

The present invention as recited in independent claim 28 provides a construction element for a sectional bowling lane. The construction element includes at least one supporting structure layer comprising a cellular board. An impact stress enduring board layer is attached to opposite sides of the supporting structure layer. At least one impact resistant laminate layer is attached to the board layer on at least one side of the supporting structure layer. The construction element is configured to be operatively connectable to at least one other construction element.

The present invention is directed to a bowling lane construction element. As such, the construction element is capable of withstanding the forces that a bowling lane typically encounters. Due to its unique construction, the present invention can greatly reduce the weight of a bowling lane as compared to known bowling lane constructions. Also, the present invention makes it possible to erect a lane for temporary use. The present invention also provides a very stable bowling lane construction. The invention represents a completely new way of thinking in the field of bowling lanes that none of the cited references disclose or suggest.

The Examiner rejected claims 11-27 under 35 U.S.C. § 103(a) as unpatentable over Brunst in view of Beamish and further in view of Honeycomb Products and Paneltec and further in view of Dunn and Turner.

As previously discussed, the Honeycomb Products and the Paneltec references are not valid prior due to their dates. Applicants did not acquiesce to their citation by simultaneously arguing their invalid dates and the contents of their disclosure. Applicants did not admit that the web site appeared in 1997, the Examiner argued such. By stating that the portion of the Honeycomb Products website cited by the Examiner was posted on December 24, 1998, Applicants in no way admitted that the web site appeared in 1997. It is a logical error on the part of the Examiner to infer such.

The Examiner states that "Paneltec shows a fraction of the ordinary level of skill in the art of honeycomb." Paneltec is not valid prior art since it has a publication date of June 2001, two and one-half years after the priority date of the present application. As a result, Paneltec cannot provide any evidence of the level of one skilled in the art at the time the present invention was made-the relevant time in any rejection over the art. Consequently, the rejection based upon the combination of references is invalid.

The Examiner now cites another web site, that of Bellcomb Technologies. There is no indication of the date that any of the materials on the website were created or posted. As a result, Applicants have no evidence that Bellcomb is valid prior art against the present invention. In fact, the link provided by the Examiner, after the link provided in the office action proved to be non-functional, was modified February 20, 2004. Therefore, that is the earliest date that can be relied upon. Contrary to the Examiner's assertion, Applicants' recognizing this certainly is not an admission of any earlier date. As a result, Applicants conclude that the Bellcomb site is not prior art against the present invention.

Additinally, the Examiner now also cites the Dunn and Turner patents as suggesting product that include honeycomb structures and are impact resistant. These products teach away from a bowling lane element that includes a honeycomb structure. Along these lines, Dunn suggests impact absorbing armor that deforms when absorbing kinetic energy. Dunn suggests a structure that has stopping power. *See* col. 6, lines 46-50. Dunn goes on to suggest at col. 6, line 53, that the structure is to dampen force of impact. At col. 5, lines 35-36 and 54-56, Dunn suggests utilizing honeycomb structures in particular and materials to provide an energy absorbing structure. On the other hand, a bowling lane such as the present invention should not deform upon impact of the bowling ball. The bowling ball should bounce off of the lane with minimal energy absorption or removal of kinetic energy. If the lane deformed upon impact of the bowling ball, the result would be a dimpled lane surface. In view of the above, the teaching of Dunn is irrelevant and leads one away from the idea of utilizing honeycomb structures in a bowling lane.

On the other hand, Turner suggests an aircraft floor structure. Such a structure does not undergo the stresses that a bowling lane undergo and does not need to maintain the tolerances of the bowling lane surface. There are no board layers or laminate layers attached to the honeycomb, only another honeycomb structure and skin. The skin layer is a part of the honeycomb, not a layer attached to the honeycomb structure. This is supported by the text of the specification of Turner, which states at col. 1, lines 14-16, which states that "[a] typical honeycomb structure includes a hexagonally cellular core with a skin layer covering at least one face of the core." Therefore, the skin is not another layer attached to the honeycomb, but rather

is a part of the honeycomb. Turner does not suggest a structure that can withstand repeated impacts. Along these lines, col. 1, lines 62-66, state that the second honeycomb is "not, by itself, able to withstand the impact or bending stresses which can be supported by the laminated structure."

The Examiner relies on cases such as Sinclair and Ryco that relate to utilizing known material or known machine parts in known structures. On the other hand, none of the cited references suggest utilizing a construction element that includes a laminate layer, a board layer and a supporting structure layer. Therefore, the structure of the present invention is not known. Additionally, none of the cited references suggests using such a construction in a bowling lane. As a result, the argument that the construction element and its application in a bowling lane are known fails.

The Examiner states that "using stronger and thicker materials, that increases the weight of the panel, also increases it resistance to impact." As a result, the Examiner then concludes that it is obvious to use honeycomb panels. However, one of the objects of the present invention is to provide a lightweight panel. Therefore, the Examiner's statement does not lead one of ordinary skill in the art to the present invention, but rather leads away from the present invention.

Brunst does not suggest the present invention since, among other things, Brunst does not suggest a bowling lane construction element describes the requirements of a bowling lane including straightness and impact resistance. Brunst's suggests a composite panel for a bowling lane. To address issues of impact resistance, Brunst suggests sealing an entire wooden element,

made flat by sanding, inside a protective durable laminate. Once the lane element reaches the end of its life span, Brunst suggests changing the element.

There is nothing in any of the references that makes the bowling lane including composite panels obvious. Additionally, the combination of references is invalid since many of the references relied upon are not valid prior art.

Applicants have not inferred "'that only low impact resistant honeycomb panels' existed" at the time of the making of the present invention. The Examiner has inferred that Applicants have made such an assertion. Applicants' acknowledgement that such panels existed is not a statement that other such panels did not exist. It is misleading and erroneous at best for the Examiner to assert that Applicants made such a statement.

Applicants also stand by the statement that, "Simple face plates applied on honeycomb panels are not sufficient to prevent damage." There is nothing false about this statement. The statements concerning the Honeycomb Products and Paneltec websites are irrelevant since these are not valid prior art.

It is unexpected to include a honeycomb panel as one element in a construction element that forms part of a bowling lane. The strength of a material does not mean that it is suitable in any application. For example, carbon fiber is one of the strongest materials known. However, once its structure is broken or fractured, it is very weak. As a result, carbon fiber structures have little or no resistance to repeated impacts. So citing a list of strong materials does not make the

construction element of the present invention obvious.

At the time the present invention was made, no commercially available modular panel was suitable for a bowling lane. Seizing upon a new way of thinking, the Applicants developed a new construction element from materials known to have poor impact resistance. This way of thinking and the resulting structure are contrary to the prior art.

The present invention also provides a lightweight element, weighing just 100 kg as compared to 195 kg for known structures, as described at page 6, lines 1-10 of the specification. As a result, the laminate and board layers of the present invention need to be considerably thinner in the present invention, which is contrary to the knowledge of those skilled in the art. One of ordinary skill in the art would know that two board layers that are positioned loosely on top of each other and have a laminate layer on the surface of the uppermost board are sufficient for attaining a reasonable lane construction, but that repairing is required from time to time. Addition of a cellular layer, which has poor impact resistance and at the same time making the board layers and laminate layer thinner and joining all of those layers together to prevent resurfacing is illogical based on the prior art.

However, unexpectedly, the present invention has proved to maintain its straightness. Also, the present invention has proven to be highly resistant to dents because the board layer, which is attached to the supporting structure layer, spreads the impact force into the plane of the board layers. Furthermore, the present invention makes it possible to optimize the impact resistance, the thickness of the various layers and the weight of the construction element in

different sections of a bowling lane.

Everything, even compositions of matter are made of combinations of elements. It is it the combination that the invention lies. The looking at elements in isolation does not make the combination or application of the combination obvious. The present invention is not merely a combination of boards and honeycomb panel. The present invention is a lightweight, sectional bowling alley element. When compared to the prior art of bowling alley construction, the present invention represents a vast improvement. No scaffolding, staging, honeycomb panel needs to endure the sort of repeated impacts of 8, 10, 12, 14 pound bowling balls and still maintain the sort of tolerance that a bowling alley must maintain. Even if a honeycomb panel is known that is strong or lightweight, that does not make it suitable alone as a bowling alley element. The Examiner is arguing against each portion of the construction individually.

In view of the above, the references relied upon in the Office Action, whether considered alone or in combination, do not suggest patentable features of the present invention. Therefore, the references relied upon in the Office Action, whether considered alone or in combination, do not make the present invention obvious. Accordingly, Applicants respectfully request withdrawal of the rejection based on the cited references.

In conclusion, Applicants respectfully request favorable reconsideration of this case and early issuance of the Notice of Allowance.

If an interview would facilitate the prosecution of this application, Applicants

respectfully urge the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit overpayment associated with this communication to Deposit Account 22-0261.

Respectfully submitted,

Date: 8-17-04

Eric J. Franklin, Reg. No. 37,134
Attorney for Applicants
Venable LLP
575 7th Street, NW
Washington, DC 20004
Telephone: 202-344-4936